

Essential Skills Test

Study Guide

Directions: Refer to your notes, textbook and homework video tutors to review any concepts that you know you need to review.

Lessons 2-1 and 2-2 Mean, Median and Mode

- 1) Refer to pages 61-66 of your textbook. Find the following vocabulary words and define them:

Mean- _____

Median- _____

Mode- _____

- 2) What are the two steps you must follow in order to find the **mean** of a data set?

Step 1: _____

Step 2: _____

- 3) What must you do with a set of data **before** you find the **median**?

- 4) Find the mean, median and mode for each set of data. You may use a calculator to find the mean.

16 , 17 , 4 , 12 , 4 , 4 , 2 , 17 , 20

Mean = _____ Median = _____ Mode= _____

6 , 15 , 16 , 20 , 13 , 5 , 10 , 16

Mean = _____ Median = _____ Mode= _____

Lessons 1-7 through 1-8 All Operations with Decimals- Find each sum, difference, product or quotient below. Show all of you work.

5) $5 + 12.08$	6) $9 - 1.45$
7) $16.03 + 5.28$	8) $0.8 - 0.126$
9) $53 \times .04$	10) $3.702(1.7)$
11) $385.6 \div 8$	12) $2.25 \div 0.5$

Lessons 3-5 to 3-7 Solve One Step Equations

What operation will “undo” addition? What operation will “undo” subtraction?

What operation will “undo” multiplication? What operation will “undo” division?

Show your work to find the missing variable. Remember to **isolate the variable** and **balance the equation**.

13) $2.7 + m = 8.2$	14) $n - 3.2 = 15$
15) $25h = 450$	16) $b \div 11 = 87$

Lessons 5-2 to 5-5 and 6-1 to 6-4 All Operations with Fractions

17) $7\frac{3}{5} + 13\frac{2}{3}$	18) $7\frac{5}{9} - 1\frac{2}{3}$
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19) $2\frac{4}{5} \times 12\frac{1}{2}$	20) $6\frac{5}{6} \div 3\frac{1}{3}$
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Lesson 7-6 Percent, Decimal, Fraction Equivalence

FILL IN THE EMPTY COLUMNS WITH THE CORRECT PERCENT, DECIMAL, OR FRACTION

	PERCENT	DECIMAL	FRACTION
	32%	0.32	$\frac{32 \div 4}{100 \div 4} = \frac{8}{25}$
21)		0.81	
22)	40%		
23)			$\frac{4}{5}$
24)	52%		
25)		1.25	

Lessons 7-7 Percent of Number –Show your work to calculate the given percent of each whole number.

26) 15% of 35	27) 38% of 125	28) 25% of 40
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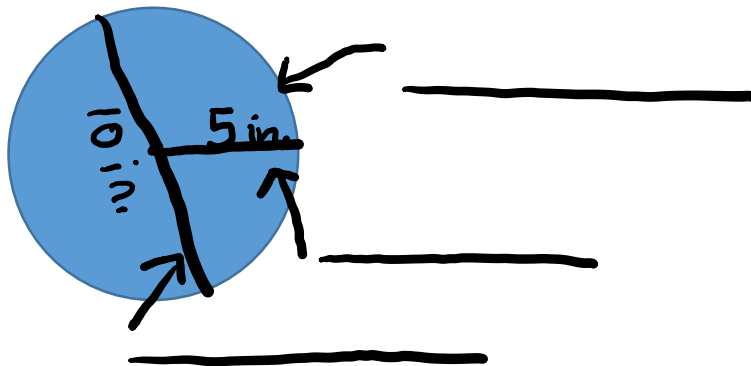
Lesson 9-5 and 9-6 Circumference, Area, Diameter and Radius of Circle- Label the **circumference, radius and diameter** of the circle below. Then, identify the value of each. Use the formulas below to help you. Show your work.

Circumference = $\pi \times \text{diameter}$

Area = $\pi \times \text{radius}^2$

Use 3.14 for π

29)



Lessons 11-3 to 11-6 All Operations with Integers- Find each sum, difference, product or quotient.

-55 x 3	7 x -6	-16 + 7	87 + -35	-5 x -12
-5 - (-7)	17 - 25	18 - (-2)	-48 ÷ -6	-125 ÷ 5

Lesson 6-7 Converting Units in the U.S. Customary System -Follow the steps below to complete each conversion. Show your Work.

Step 1- Identify whether you are going to multiply or divide:

Larger Unit → Smaller Unit (Multiply!)

Smaller Unit → Larger Unit (Divide!)

Step 2- Choose the appropriate conversion(s) from the chart

Step 3- Complete the operation to convert to the new units

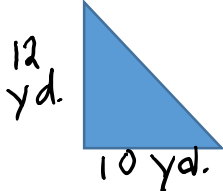
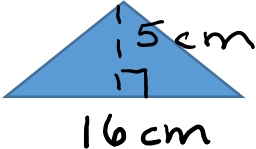
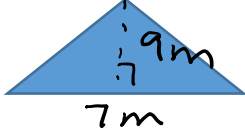
30) 3 mi = _____ feet	31) 32 oz. = _____ lb(s)	32) 40 in. = _____ ft.

Lesson 12-1 Two Step Equations- Solve for the missing variable in each equation. Remember to **isolate the variable** and keep the equation **balanced**.

33) $2y + 5 = 9$	34) $2y - 3 = -11$
35) $-6 = 4b - 10$	36) $\frac{x}{2} + 4 = 8$
37) $\frac{n}{6} - 1 = 3$	38) $1 + \frac{x}{2} = -5$

Lesson 9-4 Area of a Triangle- Calculate the area of each triangle using the formula given below:

$$\frac{\text{Base} \times \text{Height}}{2}$$

<p>39)</p> 	<p>40)</p> 	<p>41)</p> 
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